

This listing of claims will replace all prior versions, and listings, of claims in the application.

Listing of Claims:

1. (Currently amended) A method for use in a database system in which a user defined type is defined by a class in managed code and comprises a plurality of fields, each field having a respective data type, the method comprising:

defining another class in managed code that represents an XML data type;

defining at least one, but less than all, of the plurality of fields of the user defined type as having the XML data type and associating said at least one field of the instance of the user defined type with an XML Schema that defines a content model for the XML data in the field, and defining at least one other of said plurality of fields as having a different data type;

instantiating the class defining the user defined type to create an object of the user defined type comprising at least one user specific non-XML data constructor defined by the user, at least one XML data constructor, and an XML interface object, wherein the object holds XML data in said at least one field and holds data of said different data type in said at least one other field;

persisting the object within a database store;

storing content of the at least one of the plurality of fields defined as having the XML data type as a binary SQL type; and

writing non-XML data into a stream and instantiating the XML interface object in the stream to write both XML and non-XML data into a stream or file.

2. (Previously presented) The method recited in claim 1, wherein the managed code class that represents the XML data type comprises at least one constructor and at least one method that returns an object through which the XML data in said at least one field of the persisted object of the user defined type can be retrieved.

3. (Previously presented) The method recited in claim 1, further comprising adding a method to the managed code class definition of the user defined type to implement a behavior on said at least one field of the user defined type.

4. (Canceled)

5. (Previously presented) The method recited in claim 1, wherein said associating step comprises annotating the managed code class definition of the user defined type with an attribute that identifies the XML Schema on a server that hosts the database store.

6. (Previously presented) The method recited in claim 1, further comprising at least one of the steps of:

- querying the object persisted within the database store; and
- modifying the object persisted within the database store.

7. (Currently amended) A system comprising:
a runtime that provides managed code execution, the runtime comprising:
a class in managed code that represents an XML data type; and
another class in managed code that defines a user defined type, the class definition for the user defined type comprising a plurality of fields, each field at least one, but less than all, of the plurality of fields being defined as having the XML data type and at least one other of said plurality of fields being defined as having a different data type,

- wherein said managed code class that defines the user defined type comprising at least one user specific non-XML data constructor defined by the user, at least one XML data constructor, and an XML interface object, further comprises an association between said at least one field of the instance of the user defined type that contains XML data and an XML Schema that defines a content model for the XML data in the field;
- a database store that instantiates the class defining the user defined type to create an object of the user defined type, ~~and~~ that stores the object, and that stores content of the at least

one of the plurality of fields defined as having the XML data type as a binary SQL type, whereby said at least one field of the stored object contains XML data and said at least one other field of the object contains data of said different data type; and

a communication object that writes non-XML data into a stream and instantiates the XML interface object in the stream to write both XML and non-XML data into a stream or file.

8. (Previously presented) The system recited in claim 7, wherein the managed code class that represents the XML data type comprises at least one constructor and at least one method that returns an object through which the XML data in the field of the stored object of the user defined type can be retrieved.

9. (Original) The system recited in claim 7, wherein the managed code class that defines the user defined type further comprises a method that implements behavior on the field of the instance of the user defined type that contains XML data.

10. (Canceled)

11. (Previously presented) The system recited in claim 7, wherein the association comprises an attribute applied to the field within the managed code class that defines the user defined type, the attribute identifying the XML Schema on a server that hosts the database store.

12. (Currently amended) A computer readable storage medium having computer executable instructions stored thereon for execution in a system in which an object that is an instance of a user defined type can be persisted in a database store, said computer executable instructions when executed by a processor in said system implementing a method comprising:

defining a first class in managed code that represents an XML data type;

defining a second class in managed code that defines a user defined type, the second class comprising a plurality of fields, each field having a respective data type, at least one, but less

than all, of the fields within the second class being defined as having the XML data type and being associated with an XML Schema that defines a content model for the XML data in the field, and at least one other of said plurality of fields being defined as having a different data type;

instantiating the class defining the user defined type to create an object of the user defined type comprising at least one user specific non-XML data constructor defined by the user, at least one XML data constructor, and an XML interface object, wherein said at least one field of the object holds XML data and said at least one other field of the object holds data of said different data type;

persisting the object within a database store;

storing content of the at least one of the plurality of fields defined as having the XML data type as a binary SQL type; and

writing non-XML data into a stream and instantiating the XML interface object in the stream to write both XML and non-XML data into a stream or file.

13. (Previously presented) The computer readable storage medium recited in claim 12, wherein the first class comprises at least one constructor and at least one method that returns an object through which the XML data in the field of the persisted object of the user defined type can be retrieved.

14. (Previously presented) The computer readable storage medium recited in claim 12, wherein the second class further comprises a method that implements behavior on said at least one field of the user defined type.

15. (Canceled)

16. (Previously presented) The computer readable storage medium recited in claim 12, wherein said at least one field is associated with said XML Schema by an annotation to the

definition of said at least one field in the second class of an attribute that identifies the XML Schema on a server that hosts the database store.

17. (Previously presented) The computer readable storage medium recited in claim 12, wherein said computer executable instructions, when executed by said processor, further causing the processor to:

- query the object persisted within the database store; and
- modify the object persisted within the database store.